



Multiplication of positive numbers

Multiplication of Integers

By definition, multiplication is the repeated addition of numbers. But the rules for multiplication of integers are different from that of addition. It includes three possibilities. They are:

- Multiplication between two positive numbers,
- Multiplication between two negative numbers; and
- Multiplication between a positive number and a negative number.

The product of two integers with similar sign numbers will always be positive. This means the product of two positive numbers or two negative numbers will always be positive. While the product of a positive number and a negative number (integers with different signs) will always be negative.

Rules of Multiplication

Type of Numbers	Operation	Result	Example
Positive x Positive	Multiply	Positive (+)	$1 \times 5 = 5$
Negative x Negative	Multiply	Positive (+)	$(-1) \times (-5) = 5$
Positive x Negative	Multiply	Negative (-)	$1 \times (-5) = -5$
Negative x Positive	Multiply	Negative (-)	$(-1) \times 5 = -5$

In case of multiplication of integers, just multiply the numbers without the sign. Once the product is obtained give the sign according to the rule of multiplication given in the above table.

Note:

- If number of negative integers to multiply is odd, the product will be negative



Multiplication of Integers

Definition:

Multiplication of any two integers is the repeated addition.

Multiplication can be classified as follows:

- Multiplication between any two positive numbers
- Multiplication between any two negative numbers
- Multiplication between a positive number and a negative number.

The following table shows the different rules of multiplication:

Rules of Multiplication			
Type of Numbers	Operation	Result	Example
Positive x positive	Multiply	Positive +	$1 \times 2 = 2$
Negative x negative	Multiply	Positive +	$-1 \times -5 = 5$
Positive x negative	Multiply	Negative -	$1 \times -4 = -4$
Negative x positive	Multiply	Negative -	$-1 \times 7 = -7$

Example:

- $4 \times (-2) =$ four times $(-2) = (-2) + (-2) + (-2) + (-2) = -8$
- $4 \times 2 =$ four times $2 = 2 + 2 + 2 + 2 = 8$

Multiplication of Two Positive Integers

Rule:

Product of any two positive integers is always a positive.

Example:

Multiply: 2×3

To represent this on the number line, we start at 0 and put 2 groups of 3 on the number line.